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1994

EPA Superfund
Record of Decision:

SAVANNAH RIVER SITE (USDOE)
EPA ID: SC1890008989
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AIKEN, SC
09/23/1994

PB94-964058
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September 1994

EPA Superfund
Record of Decision:

Savannah River Site,
(USDOE), SC,
9/23/1994

UNITED STATES DEPARTMENT OF ENERGY

SAVANNAH RIVER SITE

FINAL RECORD OF DECISION
REMEDIAL ALTERNATIVE SELECTION

for

Tank 105-C Hazardous Waste Management Facility (U)

DECLARATION FOR THE FINAL RECORD OF DECISION

Site Name and Location

Tank 105-C Hazardous Waste Management Facility (HWMF)

Savannah River Site

Aiken County, South Carolina

Statement of Basis and Purpose

This document presents the selected final action for the Tank 105-C HWMF Unit and the immediately adjacent soils at the Savannah River Site (SRS), which was developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record for this unit.

Description of the Selected Remedy

Previous action taken was under a Resource Conservation and Recovery Act (RCRA) Closure Plan, per Settlement Agreement 90-64-SW (September 5, 1990) USDOE, Savannah River Site, approved by the State of South Carolina and is protective of human health and the environment. Therefore, no further action is necessary under CERCLA.

The selected final action remedy involved the neutralization of waste from a pH of 13.2 to a pH of less than 12.5, removal of as much waste as reasonably possible, and shipment of the waste to an onsite storage/disposal facility. All remaining waste and the tank void were stabilized in place with concrete. This remedy prevents physical exposure to contaminants (radionuclides) and mitigates potential migration of contaminants to the groundwater by stabilizing the liquid medium and minimizing the pathway for transport.

The major components of the RCRA action already conducted include:

1) Waste (including organic, aqueous, and sludge phases) neutralization with the addition of a mixture of oxalic acid and water;

2) Removal of 37 gallons of oily substance using an oil skimmer,

3) Removal of 3,753 gallons of aqueous and sludge waste, including water added during neutralization and tank rinse activities; and shipment to an on-site storage/disposal facility;

4) Tank assessment, which included a tank tightness test using the Horner EZY Check II Method;

5) Removal of 8,000 gallons of secondary wastewater (generated during the tank tightness test) and shipment to an on-site storage/disposal facility;

6) Soil assessment, which consisted of 2 background samples and 18 samples from soil borings around the ancillary piping (excluding inaccessible ancillary piping beyond an adjacent wall/foundation) and Tank 105-C, and included visual observation, pH testing and radiological screening of soils;

7) Removal of 400 cubic feet of radiologically contaminated soil adjacent to the ancillary piping;

8) Removal of ancillary piping (90 cubic feet) followed by capping of ancillary piping stubs into the reactor area, pH testing of pipe sections, and removal/placement in 90 cubic foot containers for disposal or capped in place;

9) In place filling of tank (and residual waste) including two risers with concrete;

10) Capping risers above the tank with metal caps and epoxy;

11) Surface restoration (backfilling of piping, tank excavations, and paving backfilled areas with asphalt); and

12) Restricting access to the Tank 105-C HWMF to authorized personnel with appropriate training on applicable requirements.

Declaration Statement

Previous action taken at the Tank 105-C HWMF was under a RCRA Closure Plan approved by the State of South Carolina and was protective of human health and the environment. Therefore, no further remedial action is necessary under CERCLA. To ensure continued protection of human health and the environment, this action will be reviewed every 5 years, consistent with the requirements of the NCP.

9/19/94
Date

Thomas F. Heenan
Assistant Manager for Environmental
Restoration & Solid Waste
U.S. Department of Energy

9-23-94
Date

John H. Hankinson, Jr.
Regional Administrator
U.S. Environmental Protection Agency
Region IV

DECISION SUMMARY TABLE OF CONTENTS

I. Site and Operable Unit Names, Locations, and Descriptions

The Savannah River Site (SRS) occupies approximately 310 square miles adjacent to the Savannah River, principally in Aiken and Barnwell Counties of South Carolina. (Figure 1) SRS is a secured U.S. government facility with no permanent residents. The Site is located approximately 25 miles southeast of Augusta, Georgia, and 20 miles south of Aiken, South Carolina. According to 1990 census data, the average population densities (in people per square mile) for the counties surrounding SRS range from 21 to 524 with the largest concentration in the Augusta, Georgia, metropolitan area. The population within a 50-mile radius of SRS is 634,784.

SRS is owned by the United States Department of Energy (DOE). Westinghouse Savannah River Company (WSRC) is the managing and operating contractor for DOE. SRS produces tritium, plutonium, and other special nuclear materials for national defense. The site also provides nuclear materials for the space program, and conducts medical, industrial, and research efforts. The Tank 105-C HWMF is a source specific operable unit within the C-Area Fundamental Study Area. The Tank 105-C HWMF consists of one 8,400 gallon capacity underground storage tank and ancillary piping located in C-Area, east of C Reactor 105-C and approximately 6 miles from the nearest site boundary (Figure 2). This tank and ancillary piping are the only aspects being addressed in this Record of Decision (ROD).

<Figure>
Figure 1: Site Area Map
<Figure>
Figure 2: Tank 105-C HWMF General Area Map
Compliance History

II. Operable Unit History and Compliance History

Operable Unit History

The Tank 105-C HWMF was installed in 1961 as part of an off-line heat exchanger repair program and was used as a temporary holding tank for liquid solution. Sumps from the heat exchanger cleaning area drained into Tank 105-C. Oil in the tank was probably attributable to oil leaks into these sumps. The reacted or spent oxalic acid solution that resulted from the rinsing process was pumped into an above ground neutralization tank in the stack area of the reactor building. Potassium hydroxide (KOH) was then added and mixed to raise the solution pH to 8.0 or above. After neutralization, the waste was transferred to the underground storage Tank 105-C HWMF for temporary storage. It was common for the neutralization process to require additional pH adjustment inside Tank 105-C, accomplished by circulating the waste in the tank with a pump and adding more KOH to fine tune the pH. A permanent pump was set up to pump the waste into a waste trailer for transportation to a storage/disposal facility. The pump and circulation lines were disassembled in 1983.

The Tank 105-C HWMF was closed by neutralization of waste to a pH of less than 12.5, removal of as much waste as reasonably possible, and shipment of removed waste to an onsite storage/disposal facility. Any remaining waste and the tank void were stabilized with concrete. (Figure 3)

Previous remediation actions at the Tank 105-C HWMF were conducted pursuant to the requirements of the Resource Conservation and Recovery Act (RCRA) per Settlement Agreement 90-64-SW (September 5, 1994) USDOE, Savannah River Site, which is an agreement between the State of South Carolina Department of Health and Environmental Control (SCDHEC) and the Department of Energy to prepare and submit a closure plan in accordance with R.61-79.265 Subpart G. In October 1990, a RCRA Closure Plan was submitted to the SCDHEC. SRS received approval of the closure plan on January 16, 1991, with no revision required. Revisions and subsequent approvals were made to the Closure Plan during closure activities. Closure of the Tank 105-C HWMF began in May 1991 and was completed in September 1991. The Tank 105-C HWMF was certified closed in November 1991. In December 1991, closure certification was accepted by SCDHEC as being in compliance with RCRA requirements.

<Figure>
Figure 3: Tank 105-C HWMF

Closure activities specifically included the neutralization of waste to a pH of less than 12.5, removal of as much waste as reasonably possible, and shipment of removed waste to an onsite storage/disposal facility. Any remaining waste and the tank void were stabilized with concrete. RCRA activities at the Tank 105-C HWMF became subject to CERCLA when the entire SRS facility was placed on the National Priorities List (NPL) in December 1989. The Tank 105-C HWMF is a source-specific operable unit within the C-Area Fundamental Study Area.

III. Highlights of Community Participation

The public comment period for the Proposed Plan ran from August 1, 1994 to August 30, 1994. Comments were received on the Tank 105-C HWMF and are addressed in Appendix B of the Record of Decision in the Responsiveness Summary.

IV. Scope and Role of Operable Unit within the Site Strategy

The selected final action remedy involved the neutralization of waste from a pH of 13.2 to a pH of less than 12.5, removal of as much waste as reasonably possible, and shipment of the waste to an onsite storage/disposal facility. All remaining waste and the tank void were stabilized in place with concrete. This remedy prevents physical exposure to contaminants (radionuclides) and mitigates potential migration of contaminants to the groundwater by stabilizing the liquid medium and minimizing the pathway for transport.

The No Further Action Decision action will be reviewed every five (5) years to assure continued protection by the RCRA corrective action of human health and the environment. While previous remediation actions did not involve action on the groundwater, future investigations of the C-Area will be made. A site wide risk assessment will be performed at the conclusion of the Savannah River cleanup to ensure that the site as a whole is protective of human health and the environment. Based on the results of this risk assessment, additional cleanup at the SRS may be required.

Due to the previous Tank 105-C HWMF RCRA corrective action, No Further Action under CERCLA is necessary for this source control operable unit. The RCRA corrective action provides the necessary protectiveness to human health and the environment to satisfy all CERCLA requirements.

V. Summary of Operable Unit Characteristics

Previous action taken was under a RCRA Closure Plan approved by the State of South Carolina and was protective of human health and the environment. Therefore, no further action is necessary under CERCLA.

Prior to the RCRA closure, chemicals of concern at the Tank 105-C HWMF included tritium and other radionuclides (gross alpha and gross beta/gamma) in a characteristic hazardous waste with a pH of 13.2. Risks associated with these chemicals were addressed by the RCRA closure of the tank which was consistent with the RCRA Closure Plan. Thus, the constituents no longer pose a threat to human health and the environment. (Tank 105-C HWMF post closure chemicals of concern are residual minimal quantities of radionuclides solidified with concrete with a pH of less than 12.5.) Since the waste was neutralized, the solidified waste remaining in the tank is radioactive waste which has been immobilized.

VI. Summary of Operable Unit Risks

Due to the previous Tank 105-C HWMF RCRA action, No Further Action is necessary under CERCLA for this source control operable unit. The RCRA corrective action is protective of human health and the environment and satisfies CERCLA requirements.

Wastes remaining in the Tank 105-C HWMF were stabilized along with the tank void following treatment, removal of as much waste as reasonably possible, and shipment to an onsite storage/disposal facility. Additional contaminated soils adjacent to the ancillary piping were removed and shipped to an onsite storage/disposal facility. Therefore, exposure through surface soil and sediment pathways is minimized.

Preventive alternatives were developed for the Tank 105-C HWMF based on effective technologies available at the time the RCRA Closure Plan was prepared. The RCRA Closure Plan was initially

submitted to SCDHEC in October 1990 and was approved in January 1991. Revisions and subsequent approvals were made to the Closure Plan during closure activities.

Options regarding the Tank 105-C HWMF evaluated at that time included:

Alternative 1

No Action

Alternative 2

No Waste Removal and Tank Closure

Alternative 3

Waste Removal and Tank Closure

Alternative 3 was selected within the RCRA closure process in 1990 as the most technically effective of the three alternatives for protection of human health and the environment. Closure of the Tank 105-C HWMF began in May 1991 and was completed in September 1991. The closure was certified in November 1991 and accepted by SCDHEC as being in compliance with RCRA and state requirements in December 1991. The closure is considered a final action under CERCLA.

VII. Explanation of Significant Changes

There were no significant changes.

Appendix A

References for Development of ROD Format

Weeks, Victor, 1993. "Regarding Records of Decision, F-Area and H-Area, Savannah River Site, Aiken , South Carolina", Letter to Goidell (DOE), Savannah River Site, Aiken, SC, April 14, 1993.

EPA, 1991. "Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs," OSWER Publication 9355.3-02FS-3, U.S. Environmental Protection Agency, Washington, D.C., April 1991.

WSRC, 1992. "RCRA Facility Investigation/Remedial Investigation Program Plan," WSRC-RP-89-994, Rev. 1, Chapter 15, Westinghouse Savannah River Company, Aiken, South Carolina, May 1992.

Appendix B

Responsiveness Summary

DOE has received comments regarding the Tank 105-C HWMF and they have been addressed in this Responsiveness Summary. These comments are available for review in the Administrative Record.

A reviewer provided a comment on the Tank 105-C HWMF item in the SRS Environmental Bulletin volume 5 number 15 dated July 25, 1994. This comment referred to ambiguous wording which implied "...that the neutralized liquid and sludge must have been left in the tank..." and suggested revision of this paragraph. The issue raised in the SRS Environmental Bulletin has been addressed and is clearly stated in the Proposed Plan and the Record of Decision.

A reviewer provided comments on the Proposed Plan for the Tank 105-C HWMF (U), WSRC-RP-94-56, June 24, 1994. The introductory comment stated that "The RCRA closure of the tank appears to have been an adequate short-term measure but is premature to state, as this plan does that "no further remedial action is necessary under CERCLA." This specific ROD addresses only the tank and ancillary piping and is a final action. Specific comments are italicized followed by comment response.

C: "Until the contaminated soils around the tank and its piping have been adequately characterized we do not agree that no further remedial actions under CERCLA are necessary."

R: This comment is outside the scope of this ROD. This specific ROD addresses only the tank and ancillary piping and is a final action. DOE will adequately address the contaminated soils surrounding the tank and ancillary piping as the C-Area operable unit is evaluated.

C: "SRS should describe the relationship between the decontamination and decommissioning goals and plans for the C-Area and the CERCLA requirements for the operable units in the C-area Fundamental Study Area. EPA and SCDHEC should describe their understanding and expectations of this relationship as well. It is important that the goals and standards of the RCRA/CERCLA and D&D efforts be compatible, resulting in a very similar level of environmental and public health protection."

R: This comment is outside the scope of this ROD. Buildings and areas contained within the C-Area Fundamental Study Area (FSA) are in the Site Evaluation program and will eventually be addressed per the schedules in Appendices D and E of the Federal Facility Agreement (FFA). Decontamination and decommissioning actions in the C-Area FSA will be addressed based on future evaluations.

C: "There should be a CERCLA risk assessment for the C-Area FSA that encompasses the 105-C HWMF, the other C-Area operable units, and the reactor buildings and other structures requiring decontamination and decommissioning. By consolidating the risk assessment, common assumptions about land use, demographics, and exposure pathways could be assessed to evaluate the consistency and adequacy of all remedial actions within the C-Area FSA."

R: CERCLA risk assessment will be performed for the contaminated soils and groundwater operable units associated with the C-Area FSA after they are characterized per the schedules contained in Appendices D and E of the FFA. The action for the tank and ancillary piping was performed under RCRA and no additional action is required on this unit.

C: "Although we concur that the closed tank does not present a near-term risk to the public health or the environment, SRS should acknowledge that it may be necessary to exhume the tank in order to meet land use objectives."

R: Based on future investigations at the C-Area FSA, DOE acknowledges that it may be necessary to exhume the tank.

UNITED STATES DEPARTMENT OF ENERGY

SAVANNAH RIVER SITE

FINAL RECORD OF DECISION
REMEDIAL ALTERNATIVE SELECTION

FOR

Mixed Waste Management Facility (U)

DECLARATION FOR THE FINAL RECORD OF DECISION

Site Name and Location

Mixed Waste Management Facility (MWMF)

Savannah River Site

Aiken County, South Carolina

Appendix H of the Federal Facility Agreement (FFA) lists this unit as the Mixed Waste Hazardous Waste Management Facility (Building Number 643-28G).

Statement of Basis and Purpose

This document presents the selected final preventive action for the MWMF Unit at the Savannah River Site (SRS), which was developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the Administrative Record for this unit.

Description of the Selected Remedy

The selected final action remedy announced in this Record of Decision is no further action. As described below, a remedy under RCRA was completed for this unit in December 1990. This RCRA corrective action involved the precompaction and placement of all contaminated materials under a low permeability cap. This RCRA remedy prevents physical exposure to contaminants and mitigates further migration of contaminants to the groundwater by minimizing a liquid medium pathway (rainwater percolation) for transport.

No further action is necessary for the unit. However, as a condition of the RCRA Hazardous Waste Permit, post closure groundwater monitoring is required to verify that no unacceptable exposures to potential hazardous posed by conditions at the operable unit occur in the future. This unit was closed by the requirements of a closure plan approved in December 1987 by the state of South Carolina under RCRA authority. The RCRA closure of MWMF began in 1988 and was completed in December 1990. MWMF was certified closed in 1991. In April 1991, the closure certification was accepted by the state of South Carolina as being in compliance with RCRA requirements.

The major components of the RCRA preventive action included:

1) Precompaction.

2) Initial backfill after compaction to level 5 feet below final cover elevations.

3) Placement of a final cover over the trenches. The cover consists of a three foot minimum layer of compacted kaolin clay with a permeability of 1x10[-7] cm/sec or less, two feet of final cover and vegetative cover, cap drainage and stormwater conveyance system (See below).

<Figure>

4) The MWMF is being routinely inspected for a minimum of 30 years to verify the integrity of the cover system, fences, signs, etc. Any necessary repairs to the cap will be made as part of the maintenance program.

5) Access to the MWMF is restricted to authorized personnel with appropriate training on applicable requirements. The survey plat and records associated with deed restricted use of the MWMF have been filed with Aiken County, SC.

Declaration Statement

Previous action taken at the MWMF was under a RCRA Closure Plan, per NRDC et al. v. Herrington, Civ. Action No. 1:85-2583-6 (D.S.C. May 26, 1988), approved by the state of South Carolina and was protective of human health and the environment. Therefore, no further remedial action is necessary under CERCLA. To ensure continued protection of human health and the environment, this remedial action will be reviewed every 5 years, consistent with the requirements of the NCP.

9/19/94
Date

Thomas F. Heenan
Assistant Manager for Environmental
Restoration and Solid Waste
U.S. Department of Energy

9-23-94
Date

John H. Hankinson, Jr.
Regional Administrator
U.S. Environmental Protection Agency
Region IV

DECISION SUMMARY
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I. Site and Operable Unit Names, Locations, and Descriptions

The Savannah River Site (SRS) occupies approximately 310 square miles adjacent to the Savannah River, principally in Aiken and Barnwell Counties of South Carolina (Figure 1). SRS is a secured facility with no permanent residents. The site is approximately 25 miles southeast of Augusta, Georgia, and 20 miles south of Aiken, South Carolina. The average population density in the counties surrounding SRS ranges from 21-524 people per square mile with the largest concentration in the Augusta, Georgia, metropolitan area. Based on 1990 census data, the population within a 50-mile radius of SRS is approximately 634,784.

SRS is owned by the United States Department of Energy (DOE). Westinghouse Savannah River Company (WSRC) is the managing and operating contractor for DOE. SRS produces tritium, plutonium, and other special nuclear materials for national defense. The site also provides nuclear materials for the space program, and conducts medical, industrial, and research efforts. The Mixed Waste Management Facility (MWMF) is a source specific operable unit within the Burial Ground Complex Fundamental Study Area. The MWMF consists of 118 slit trenches, 1 Engineered Low Level Trench (ELLT-1), and a naval core barrel mound and is located in the center of SRS, between F and H Areas (Figure 2).

<Figure>
Figure 1 Location of the Savannah River Site (SRS)
<Figure>
Figure 2 MWMF

II. Operable Unit History and Compliance History

Operable Unit History

The MWMF operated from 1969 until March 11, 1986. During that time, this facility, which comprises approximately 58 acres, received low-level radioactive waste materials produced at the SRS. Some of these materials are classified as mixed waste containing both hazardous and radioactive components under the Resource Conversation and Recovery Act (RCRA). These trenches were closed by precompacting and placing a protective multi-layer cover system (Figure 3) over them to reduce rainwater contact with trench bottoms.

Compliance History

RCRA preventive actions at the MWMF were conducted pursuant to the requirements of the Resource Conservation and Recovery Act (RCRA) per NRDC et al. v. Herrington, Civ. Action No. 1:85-2583-6 (D.S.C. May 26, 1988) which is an order from the court in settlement of the lawsuit for closure of the facility under RCRA. In 1985 a RCRA Closure Plan was submitted to SCDHEC. The closure plan underwent several revisions prior to approval by SCDHEC in 1987. Closure of the MWMF was begun in 1988 and completed in December 1990. The MWMF was certified closed in 1991. In April 1991, the closure certification was accepted by SCDHEC as being in compliance with RCRA requirements. A RCRA Part B Permit Application for Post-Closure Care was submitted in November 1992.

Mixed Waste Management Facility
Closure Cap Cross Section

<Figure>
Figure 3 MWMF Cap Cross Section

Closure activities specifically included precompaction; construction of a low permeability cap over the trenches; and restoration of the area.

RCRA preventive activities at the MWMF became subject to CERCLA when the entire SRS facility was placed on the National Priorities List (NPL) in December 1989. The MWMF is a source-specific operable unit within the Burial Ground Complex Fundamental Study Area.

III. Highlights of Community Participation

The public comment period ran from 01 August 94 - 30 August 94. All comments submitted on the

Proposed Plan have been incorporated into this ROD, where appropriate and are addressed in the Responsiveness Summary (Appendix B).

IV. Scope and Role of Operable Unit within the Site Strategy

The selected RCRA remedy involved the placement of all contaminated materials under a low permeability cap. The remedy prevents physical exposure to contaminants and mitigates further migration of contaminants from the MWMF to groundwater by minimizing a liquid medium pathway (rainwater percolation) for transport.

V. Summary of Operable Unit Characteristics

Waste from SRS disposed in the form of job control waste such as rags, gloves and coveralls, soil, construction debris, failed equipment, spent air filters, spent lithium-aluminum targets, irradiated scrap metal, naval reactor hardware, lead shielding, waste oil, scintillation fluids, cadmium and silver coated beryl saddles, were sent to the MWMF. The constituents of concern at the MWMF are barium, chloroform, cadmium, 1,1-dichloroethane, vinyl chloride, trans-1,2 dichloroethylene, phenol, aluminum, iron, manganese, carbon-14, lead, tritium, nickel, tetrachloroethylene, trichloroethylene (TCE), zinc, uranium-234/235, uranium-238. The primary constituents of concern are tritium, lead, TCE, and uranium.

VI. Summary of Operable Unit Risks

Due to the previous MWMF RCRA preventive action, No Further Action under CERCLA is necessary for this source control operable unit. The RCRA preventive action is protective to human health and the environment and satisfies CERCLA requirements.

The trenches were first compacted and then were covered with a low permeability soil cap. Therefore, exposure through surface soil and sediment pathways is minimized because of this RCRA cap.

Preventive alternatives were developed for the MWMF based on effective technologies available at the time the RCRA Closure Plan was prepared. The RCRA Closure Plan was initially submitted to SCDHEC in November 1985 and was approved, following several revisions, in December 1987.

Options regarding the MWMF evaluated at that time included:

Alternative 1

No Action

Alternative 2

No Waste Removal, Waste Consolidation, and Closure

Alternative 3

Waste Removal and Closure

Alternative 2 was selected within the RCRA closure process in 1985 as the most technically effective of the three alternatives for protection of human health and the environment. Closure of the MWMF was begun in 1988 and completed in 1990. The closure was certified in April 1991 and accepted by SCDHEC as being in compliance with RCRA and state requirements. The closure is considered a final action under CERCLA.

VII. Explanation of Significant Changes

There were no significant changes made to the remedy decision since the publishing of the proposed plan on 01 August 1994.

Appendix A

References for Development of ROD Format

EPA, 1991. "Guide to Developing Superfund No Action, Interim Action, and Contingency Remedy RODs," OSWER Publication 9355.3-02FS-3, U.S. Environmental Protection Agency, Washington, D.C., April 1991.

WSRC, 1992. "Draft RCRA Facility Investigation/Remedial Investigation Program Plan," WSRC-RP-89-994, Rev. 1, Chapter 15, Westinghouse Savannah River Company, Aiken, South Carolina, May 1992.

Appendix B

Responsiveness Summary

DOE has received comments regarding the MWMF and they have been addressed in this Responsiveness Summary. These comments are available for review in the Administrative Record.

A member of the public provided comments on the MWMF item in the SRS Environmental Bulletin volume 5 number 15 dated July 25, 1994. This comment referred to adding a figure representing the amounts of hazardous waste in the facility and the approximate volume of compacted waste. The issue raised in the SRS Environmental Bulletin concerning the hazardous waste volumes has been addressed and is clearly presented in the Proposed Plan. The issue concerning the volume of compacted waste is clarified here. Compaction at this waste site was done in order to form a stable foundation for the kaolin clay cap; therefore, no measurement was conducted to determine the exact waste consolidation.

An interested party provided comments on the MWMF Proposed Plan in a letter to C. V. Anderson dated September 8, 1994. The specific comments and their responses are as follows:

C: SRS has not demonstrated the assertion that because of the RCRA closure at the MWMF "the unit poses no current or potential threat to human health or the environment" and, thus, "no further action is necessary under CERCLA." In ERF's July 9, 1993 letter to David Wilson at SCDHEC and Len Sjostrom at SRS we provided extensive comment and criticism on the RCRA post-closure risk assessment for the MWMF. We have never received a direct response from SRS. If there is a risk assessment to support a "no further remedial action" position under CERCLA then we request the opportunity to review it.

R: RCRA closure of a land disposal unit in which waste is left in place is protective of human health and the environment under RCRA and therefore, a risk assessment is not required. The actions taken at the MWMF under the RCRA/CERCLA program were completed within the requirements set forth by SCDHEC and the EPA.

C: Additionally, the decision to leave waste buried at MWMF and the other Burial Ground Complex facilities is a de facto decision about long-term land use. Given the long-lived nature of many of the wastes, the implied restriction goes far beyond the 30 and 100 year institutional control projections which shaped the earlier risk assessments. If, in fact, unrestricted use of the site after 100 years is not going to be safe, then SRS and its regulators should acknowledge this and commit to some additional decision making.

R: These actions are protective of human health and the environment and will be reviewed every 5 years as required by CERCLA and the RCRA post closure care permit renewal process.

C: Until there is a meaningful land-use planning process at SRS involving stakeholders, the attainment of primary drinking water standards at the perimeter of the BGC should be a minimum requirement. It's not clear that SRS can meet these standards without additional source control at MWMF and the other BGC facilities. If additional source control is necessary to meet primary drinking water standards at the BGC perimeter, SRS and its regulators should work together to examine how to locate specific sources of contaminants within the BGC and what technology and/or research and development options are necessary to remedy the situations.

R: The MWMF groundwater is being addressed under RCRA which is a groundwater based program. Under RCRA, monitoring of the subsurface contamination is being conducted. Investigation of the groundwater contamination is currently ongoing and will be addressed under separate regulatory documentation. This MWMF Proposed Plan is for the source control operable unit only. All other source control units, including the groundwater operable unit, will be addressed under separate Proposed Plans and Records of Decision. DOE land use policy is being developed currently but until finalized, 5 and 30 year reviews will be maintained.